

FOCUS AND TILT ADJUSTING SYSTEM FOR LITHOGRAPHY ALIGNER, MANUFACTURING DEVICE OR INSPECTION DEVICE

Publication number: JP10154659

Publication date: 1998-06-09

Inventor: SUWA KYOICHI

Applicant: NIPPON KOGAKU KK

Classification:

- International: G03F7/20; G03F7/207; G03F9/00; G03F9/02; H01L21/027; G03F7/20; G03F7/207; G03F9/00; G03F9/02; H01L21/02; (IPC1-7): H01L21/027; G03F7/207

- European: G03F7/20T16; G03F7/20T22; G03F7/20T24; G03F7/20T26; G03F9/00T12

Application number: JP19970274812 19971007

Priority number(s): US19960727695 19961007

Also published as:

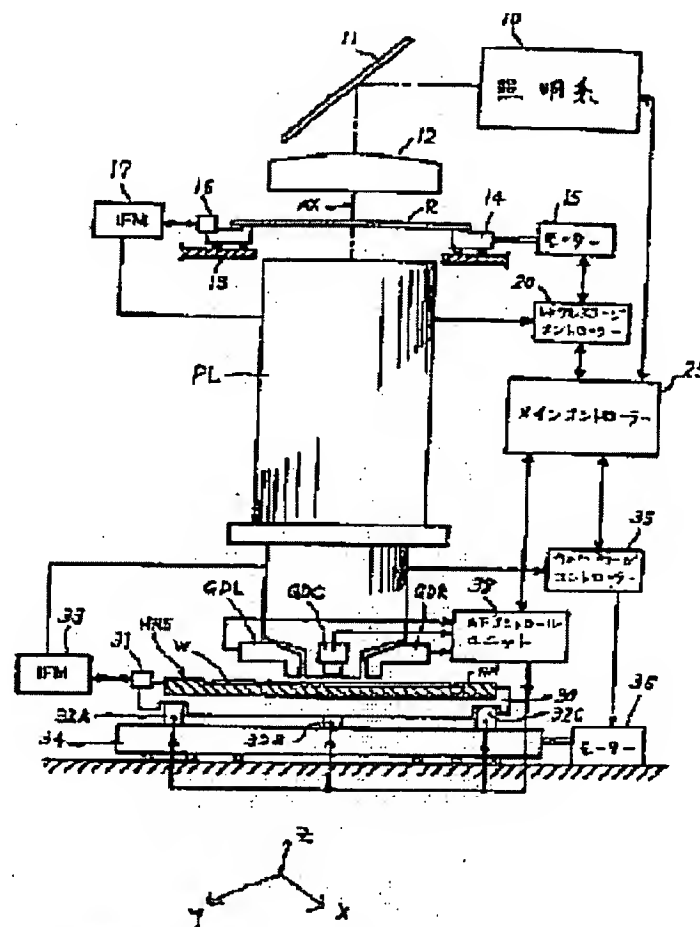
EP0834773 (A2)
US5825043 (A1)
EP0834773 (A3)

Report a data error here

Abstract of JP10154659

PROBLEM TO BE SOLVED: To realize a focus and tilt adjusting system which enables high-precision focus control and high precision tilt control by a method wherein the position of the principal surface of a substrate in the z-direction is detected in the scanning direction, a direction intersecting the scanning direction, and a direction intersecting the scanning direction from the image forming direction respectively, and a focus of an image projected onto the substrate is adjusted basing on the detection values.

SOLUTION: Focus detecting systems GDL and GDR are each equipped with focus detection points positioned in front and at the rear of an imaging field, respectively, with respect to the direction of a scanning movement of a wafer W in scanning projection aligner. Seeing from above the surface (XY plane) of a wafer W, a focus detecting system GDC is equipped with a detection point located in a non-scanning direction vertical to the scanning direction of the imaging field of a 1/4 reduction projection lens PL. Z actuators 32A, 32B, 32C are driven by an optimal distance by an AF control unit 38 basing on the detection data supplied from the focus detection systems GDL, GDR and GDC.



Data supplied from the esp@cenet database - Worldwide